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In Re Application for:

ACHENBACH, PATRICK

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Examiner: GRAVINI, STEPHEN

Confirmation No. 1493

For: DEHUMIDIFYING OF AIR WITHIN SWITCH CABINET FOR A  
WIND TURBINE BY MEANS OF PELTIER ELEMENT

APPEAL BRIEF

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Applicant (hereinafter "Appellant") submits one copy of the following Appeal Brief pursuant to 37 C.F.R. § 41.37 for consideration by the Board of Patent Appeals and Interferences. Appellant also submits herewith payment in the amount of \$540.00 to cover the cost of filing the opening brief as required by 37 C.F.R. § 41.20(b)(2). Please charge any additional amount due or credit any overpayment to deposit Account No. 070849.

Respectfully submitted,

February 14, 2011  
Date

/Edward J. Smith/  
Edward J. Smith  
Reg. No. 55,631

General Electric Company  
1 River Road  
Schenectady, New York 12345  
Telephone: (518) 385-2822  
Fax: (518) 385-3821

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C. STATEMENT OF REAL PARTY OF INTEREST

The real party in interest is the assignee of full interest in the invention as claimed, General Electric Company, a corporation, having a principal address at 3135 Easton Turnpike, Fairfield, CT 06828-001, United States.

**D. RELATED APPEALS AND INTERFERENCES**

A proceeding of opposition before the European Patent Office on European Patent 11123E-EP was held. While the subject matter is the same, the claims of the European Patent are considered by the Plaintiff in the instant U.S.P.T.O. Appeal to be different from the claims before the Appeals Board to be non-instructive to a decision in the instant case.

E. STATUS OF CLAIMS

Claims 1-12 are cancelled.

Claims 13-28 are rejected

Claims 13-28 are being appealed.

F. STATUS OF AMENDMENTS

An amendment filed on April 23, 2010, after final rejection, was entered by the Examiner. A copy of amended Claims 13-28 as they stand on appeal are set forth in Claims Appendix.

## G. SUMMARY OF CLAIMED SUBJECT MATTER

Nomenclature-Page (P),Line (L) Figure(FIG.), Reference Numeral

(Claim 13) Claim 13 of the present invention relates to an apparatus that maintains the operability of a switch cabinet for a power-generating wind turbine by preventing deposition of moisture on electrical circuits of the switch cabinet with a drying arrangement [P1,L6-10]. The subject matter of the present invention “operating parameters of modern wind turbines, like e.g. blade angle, total orientation of the rotor and/or adjustment of the generator used for power generation, are electronically controlled. [P1, L15-19] Moisture on electronically controlled circuit elements will interfere with or fault normal operation of critical operating parameters of power generating wind turbines. [P1,L19-21]

An apparatus, comprising:

a power-generating wind turbine switch cabinet; [P1, L15-20]; [P2-L9-11, L21]; [P3, L11-12, 20, 25]; [P4, L10-14, 28]; [P5 L 9, 11, 15]; FIGs. 1-2 (1)]

at least one power-generating wind turbine circuit element coupled to the power-generating wind turbine switch cabinet; [P1,L15-19]; [P2,L14, 17, 23 ,26]; [P3,L13, 15, 16]; [P4,L12-14, 19, 20, 28]; [P5,L15]; [FIGs. 1-2 (20)]. and

a drying arrangement adapted to prevent water deposition onto the at least one power-generating wind turbine circuit element, the drying arrangement including an air flow device in close proximity to the at least on power-generating wind turbine circuit element and generating an air flow moving past the at least one power-generating wind turbine circuit element to counteract the water deposition onto the at least one power-generating wind turbine circuit element. [P2,L 22-32]; [P4,L 14-20, 22-29]; [P5,L 9, 11, 15]; [P6,L6]; FIGS. 1-2, (30, 32, 34).]

guiding means [P3,L1-6];[P4, L16-20, 21-26]; FIG. 1(34), FIG. 2 (34)] directing the air flow from the air flow generating device past the at least one power-generating wind turbine circuit element.

(Claim 14) The apparatus of claim 13, wherein the drying arrangement further comprises:

at least one heating device to heat an air in the region of the at least one power-generating wind turbine circuit element. [P2, L15-19]; [P 4,L15-20]; [P 5 L13-20, 22-24]; FIG. 1(32), FIG. 2 (132).]

(Claim 15) The apparatus of claim 13 or 14, wherein the drying arrangement further comprises:

a cooling element to separate water from air flowing by, the cooling element being spaced apart from the at least one power-generating wind turbine circuit element; [P2,L21-32]; [P4,L19,28]; [P4,L31; [P5,L3]; P5,L15-20, 26-33]; FIG. 1(36), FIG. 2(136)] and

a drain element to drain the water deposition out of the power-generating wind turbine switch cabinet. [P2, L24, 31-32]; [P5,L3-6, 18-20, 29-32]; FIG. 1(38); FIG. 2(138)]

(Claim 16) The apparatus of claim 15, wherein the air flow device generating an air flow circulating within the power-generating wind turbine switch cabinet and moving air past the at least one power-generating wind turbine circuit element and the cooling element. [P2,L13-15, 26-32; [P4,14-20, 22-29]; [P5,L8-12, 13-20]; FIG. 1,2(30)]

(Claim 17) The apparatus of claim 15, wherein a Peltier element includes the at least one heating device and the cooling element. [P3, L1-6, 20-25]; P5, L22-32]; [P6,L3-4]; FIG. 2(130).}

(Claim 18) The apparatus of claim 16, wherein a Peltier element includes the at least one heating device and the cooling element. [P3,L1-6, 20-25]; [P5,L22-32]; [P6,L 3-4]; FIG. 2(130).]



(Claim 19). The apparatus of claim 17, further comprising:

a plate-like flow guidance element interspersed with the Peltier element, and wherein the at least one power-generating wind turbine circuit element is disposed at a side of the flow guidance element to face a warmer part of the Peltier element. [P3,L1-6]; [P4,L14-20]; [P5,L 24-32]; FIG. 1(34); FIG. 2(34), (35)]

(Claim 20) The apparatus of claim 18, further comprising:

a plate-like flow guidance element interspersed with the Peltier element, and wherein the at least one power-generating wind turbine circuit element is disposed at a side of the flow guidance element to face a warmer part of the Peltier element. [P3,L 1-6]; [P4,L14-20]; [P5,L 24-32]; FIG. 1(34); FIG. 2(34), (35)]

(Claim 21) The apparatus of claim 13, further comprising:

a control device to control the drying arrangement depending on temperature or humidity within or outside the power-generating wind turbine switch cabinet. [P3,L7-9]; [P5,L 8-13, 31; P6,L2;]

(Claim 22) The apparatus of claim 13, wherein the at least one power-generating wind turbine circuit element controls an operation of the wind turbine. [P1,L15-17]; [P3,L 13-14]; [P4,L13-14]; FIG. 1, 2 (20).]

(Claim 23) A method [P3,L12]comprising:

controlling an operational parameter of a power-generating wind turbine by at least one

power-generating wind turbine circuit element coupled to a power-generating wind turbine switch cabinet; [P1,L15-17]; [P3,L13-14]; FIG. 1, 2.]

and

generating an airflow in the internal space of the power-generating wind turbine switch cabinet using an air flow generating device to counteract a deposition of condensation water onto the at least one power-generating wind turbine circuit element. [P2,L26-32]; [P3,L15-18]; [P4,L13-15]; FIG. 1, 2]

(Claim 24) The method of claim 23, further comprising:

heating an air in a region of the at least one power-generating wind turbine circuit element. [P2,L15-19, 26-32]; [P3,L1-6, 17-18]; [P4,L14-20, 24-29]; [P5,L10-12, 13-17, 26-29]

(Claim 25) The method of claim 23 or 24, further comprising:

separating water from the airflow at a cooling element, the cooling element spaced apart from the at least one power-generating wind turbine circuit element; [P2,L21-24]; [P3,L18-20]; [P4,L19-20, 26-29]; [P5,L 29-32]; FIG. 1, 2.]

and

draining the condensation water out of the switch cabinet by a drain element. [P2,L26-32]; [P3,L13-20]; [P5,L3-6, 18-20, 29-34]; FIG. 1, 2.]

(Claim 26) The method of claim 24, further comprising:

heating the air by the Peltier element, which is also used as a cooling element. [P3,L1-7, 20-26]; [P5,L22-29]; FIG. 1, 2.]

(Claim 27) The method of claim 25, further comprising:

heating the air by the Peltier element, which is also used as a cooling element. [P3,L 1-7, 20-26]; [P5,L22-29]; FIG. 1, 2.]

(Claim 28) The method of claim 25, further comprising:

generating the airflow, [P2,L26-32]; [P3,L15-18]; [P4,L22-24], [P,L 8-13]; FIG. 1, 2.]

heating the air, [P2,L15-19]; [P3,L15-18]; [P4,L14-20]; [P5,L8-12, 29-34]; FIG. 1, 2.]

and

activating the cooling element depending on temperature or humidity within or outside the power-generating wind turbine switch cabinet. [P3,L7-9, 20-25]; [P5,L9]; [P5,L29-P6,L6.]

H. GROUNDS OF REJECTION TO BE REVIEWED UPON APPEAL

1. Whether Claims 13-16, 21-25 and 28 are unpatentable under 35 U.S.C. §103(a) over Lagerway (WO 01/21956) in view of Yamac (US 4,890,395).
2. Whether Claim 17 is unpatentable under 35 U.S.C. §103(a) over Lagerway in view of Yamac and further in view of Roethel (U.S. 1,722,825).
3. Whether Claims 18-20 are unpatentable under 35 U.S.C. §103(a) over Lagerway in view of Yamac or Lagerway in view of Yamac and further in view of Roethel.
4. Whether Claims 21-22 are unpatentable under 35 U.S.C. §103(a) over Lagerway in view of Streed (US 3,332,620).
5. Whether Claims 26-27 are unpatentable under 35 U.S.C. §103(a) over Lagerway in view of Yamac.

All of the claims do not stand or fall together. The basis for the separate patentability of claims is set forth below.

## I. ARGUMENT

In Order For A Claim To Be Properly Rejected Under 35 U.S.C. §103, the Prior Art References Must Suggest All Features Of The Claimed Invention To One Of Ordinary Skill In The Art. (See e.g., *In re Dow Chemical*, 837 F.2d 469, 5 USPQ 2d 1529,1531 (Fed. Cir 1988); *In re Keller*, 642 F.2d 413, 208 USPQ 2d 871,881 (C.C.P.A. 1988).

### I. Claim 13

1. Lagerway (WO 01/21956) discloses “a windmill for generating electric current with the aid of a generator driven by vanes. The rotor and the vanes are supported by a common bearing. According to the invention, the stator is positioned in a closed chamber with an air seal between the rotating part and the stationary part of the generator.” {Abstract}. The risk of condensation on the stator coil 20 is reduced further by ensuring that the generator chamber 46 contains only dry air. Various seals are provided to prevent outside air leakage into the generator chamber. The stator windings are further provided with a system for cooling the heat generated in the winding due to the electric current by circulating a cooled fluid. Additionally, the stator winding may use the cooling path described above to circulate a heated fluid to the windings or alternatively use electric heaters in the stator windings. The heating arrangements are intended to prevent moisture formed on cold stator windings from potentially causing shorts. [FIG. 6]

A fan may force air from the machine housing into the generator chamber to maintain an superatmospheric pressure, preventing leakage of moist outside air into the generator chamber through seals and the like. The air intake path to the chamber may include a heater. An air exhaust path may be provided.

2. The Office Action cites Lagerway as reciting a machine housing 4 that teaches a power generating wind turbine switch cabinet. Applicant respectfully asserts that a machine housing is not a “power generating wind turbine switch cabinet” as cited in the claim. The machine housing is a large component that contains significant mechanical and ventilation equipment needed for the turbine. Such a machine housing is not a switch cabinet. Lagerway nowhere teaches that the machine housing 4 contains switches that are inherently part of a switch cabinet. Lagerway addresses a stator chamber 46 of FIG. 1 that encloses fixed generator windings, but no switches. Applicant respectfully submits that Lagerway does not teach a switch cabinet.

3. Further Lagerway, nowhere teaches an air flow device “*in close proximity to the at least one*

*power-generating wind turbine circuit element*” [Emphasis added]. A fan 50 (FIG. 7) of Lagerway is external to the generator chamber 46 where the stator windings 9 and rotor windings 8 are housed, which the Office Action takes to be “power-generating wind turbine circuit element”, are disposed. Applicant respectfully asserts that the fan 50 is not in close proximity to the circuit element as claimed, but outside the generator chamber 46. As described in the specification (Pg 2, Lines 13-19; Pg 4, Lines 22-29), an essential advantage of the invention is to provide an air flow in close proximity to the circuit elements to eliminate the need for high power consumption associated with heating a full switch cabinet. Providing an air flow in close proximity to the circuit element increases the amount of airflow directly passing over the circuit element, thereby improving effectiveness in preventing condensation on the circuit element. Lagerway (Page 7, lines 18-29 specifically recites only that a superatmospheric pressure is maintained in the generator chamber by supplying air from an external machine housing 4 and that a flow into and out of the chamber might be provided. Lagerway nowhere recites providing an air flow in close proximity to the circuit element.

4. Further, Lagerway nowhere teaches “generating an air flow *moving past* the at least power-generating wind turbine circuit element to counteract the water deposition onto the at least one power-generating wind turbine circuit element” [Emphasis added]. Lagerway does recite sealing the generator chamber 46 to prevent inward leakage of outside moist air and providing a superatmospheric pressure in the generator chamber to prevent outside air from entering. However, claim 13 explicitly requires an air flow device generating an air flow “moving past” the at least one power generating wind turbine circuit element. The airflow moving past the circuit element counteracts the deposition of water.

5. FIG. 5 of Lagerway, is erroneously in the Office Action [Page 2, next to last line] as providing some teaching relative to a drying arrangement, actually relates to a bearing lubrication unit and provides no teaching relative to Claim 13 [Emphasis Added].

6. FIG. 7 of Lagerway, as cited in the Office Action, illustrates an external air unit 16 with a blower 50 and possibly an external heater 51 to deliver low moisture content air to the generator chamber. The air inlet 52 to the chamber is positioned adjacent to the air outlet 53 of the chamber such that the superatmospheric pressure is maintained in the chamber. An air flow entering the chamber exits through the air outlet 53, which is shown in proximity to the air inlet 52.

7. An airflow moving past the circuit element is a critical and essential element of the present

invention for effectiveness of moisture absorption from the circuit element and conservation of energy. If the air does not flow past the circuit element, then the entire chamber must be heated at great waste of energy and/or the chamber must be sealed at added cost. However in Lagerway, the airflow does not flow past the circuit element, such that the blowing over the circuit element efficiently counteracts the deposition of moisture on the circuit element. Therefore, Lagerway incurs the cost of providing and maintaining a superatmospheric pressure of dry air in the entire generator chamber and heating the entire generator chamber (Page 7. lines 18-33). This aspect of Lagerway in effect is teaching away from the approach of the present invention.

8. Applicant further asserts that as shown from FIG. 7 of Lagerway, the air inlet 52 into the chamber does not dispose any air to be “moving past” the circuit element taken by the Office Action to be the windings. In particular, FIG. 7 shows the inlet 52 to the chamber 46 to be in proximity to the outlet 53 such that an air flow would exit the chamber rather than moving past the circuit element, as recited in Claim 13. Lagerway provides no explicit teaching that any of the air flow “moves past” the circuit element. This is particularly relevant as to the effect cited in the specification as to airflow moving past the circuit element being effective in preventing moisture deposition without the large expenditure of energy that would be required in Lagerway to heat and pressurize the entire chamber.

9. The Office Action attempts to address proximity Page 6 last two lines and the continuing paragraph of Page 7. Office Action acknowledges that fan 50 is outside of the generator chamber but yet in close proximity because it is on the same shaft. If Office Action means the fan is driven by the same shaft, Applicant can find no support for this within Lagerway. If Office Action means it is physically near the main shaft, then this has no significance in that the nacelle can be sized as big as a bus and the shaft can run a distance of 20 feet. Any such statement by the Office Action of proximity in this regard is sheer speculation, unsupported by anything in the four corners of Lagerway.

10. The Office Action attempts to address this deficiency by establishing an airflow within the generator chamber and over the circuit element, where again the airflow is not described anywhere within the four corners of Lagerway. The Office Action pulls this airflow from thin air, describing as “inherent that a rotating shaft inside a super atmospheric chamber will generate an airflow because the rotation of the shaft must rotate causing a surface of the shaft to break the non flowing air around it which further causes airflow around the shaft. Since the shaft is inside the chamber, it “moves past” the circuit element as claimed.” The Office Action refers to a

“shaft” but Lagerway does not describe a shaft.

11. Attention is directed to Pg 4, Line 31 to Page 8, line 2, which describes the mechanism for heating and cooling of the stator and rotor elements of the wind turbine. None of these describe the mechanism postulated by the Office Action to attempt to disclose the elements of the instant claim.

12. Based on the above, Applicants maintain that Lagerway fails to teach “generating an airflow *moving past* the at least power-generating wind turbine circuit element to counteract the water deposition onto the at least one power-generating wind turbine circuit element”.

13. Further, Lagerway nowhere “teaches guiding means directing the air flow from the air flow generating device past the at least one power-generating wind turbine circuit element.” Such guiding means is explicitly described in the specification (flow guide plate 34 of FIG. 1; Page 4, lines 10-29). In fact, as previously described above, FIG. 7 of Lagerway illustrates an air flow into generator chamber 46 through inlet 52 disposed in close proximity to outlet 53. Lagerway teaches no guiding means within the chamber 46 for directing air flow past the at least one power-generating wind turbine circuit element. If anything, Lagerway teaches that airflow enters through inlet 52 and exits through outlet 53 without being guided.

14. The Office Action acknowledges that Lagerway does not teach the “guiding means” of claim 13, but asserts that Yamac provides such teaching. Yamac teaches a “a hair dryer in which the heating device, the switch, the igniting mechanism and the gas tank are provided by a conventional gas-operated pocket lighter (17) preferably equipped with a battery ignition or piezoquartz ignition or, in an alternative embodiment, by a disposable lighter using flint ignition (40). It is also within the scope of the invention to use an exchangeable gas tank, with the igniting device being fixedly arranged in the hair dryer housing. The ignition process is started as the lighter (17 or 40) is inserted into the recess (21 or 21a) of the hair dryer housing, with the blower (2) being started briefly before by contact of the laminae (18 or 18a).” [Abstract].

15. Yamac provides an air guide plate 3 and a baffle plate 4 internal to the hair dryer [FIG. 2]. The plates guide the flow of air within the hair dryer to an exit nozzle 20. For use, the hair dryer must then be manipulated for use to bring the exit nozzle into proximity of a user’s hair to perform the drying operation. The guides of Yamac do not guide the air to the hair of the user. Claim 13 of the present invention recites “guiding means directing the air flow from the air flow generating device past the at least one power-generating wind turbine circuit element”. The



guides of Yamac do not recite guiding the airflow “from” the airflow device “past ” the item to be dried, which is the full element of the claim. Further Yamac does not recite a flow past electrical contacts 18 within the blower. The Office Action cannot assume a flow path over these contacts, as Yamac does not disclose this and none of the figures show the contact circuitry in sufficient detail to reasonably conclude that the flow passes by these contacts. For this reason alone, Yamac does not teach this element of the claim alone or in combination with Lagerway.

16. Further the Yamac reference cited reference is from a very dissimilar field being personal grooming device whereas the present invention is in the fields of switch panels for power generating equipment and the other is a hair dryer, Applicant submits that even if Yamac provided a relevant teaching, it would not have been obvious or reasonable to combine Yamac from such a dissimilar field with Lagerway for the purpose of teaching a “guiding means .....”.

17. Based on the above, Lagerway alone or in combination with Yamac does not teach or suggest a guiding means directing the airflow “from” the airflow device “past ” the item to be dried.

18. In order for a claim to be properly rejected under 35 USC 103§(a), the teaching of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. Because as described in Sections 2-6 above, Lagerway alone or in combination with Yamac does not teach or suggest each and every element of Claim 13, the rejection under 35 USC 103(a) must be withdrawn and Claim 13 be allowed. Further because Claims 14-22 depend from Claim 13, for the reasons cited above, they must also be allowed.

19. Roethel (US 1722825) is a patent issued July 30, 1929 for a roof ventilator of a closed automobile body. Roethel describes a structure for ventilating the inside of an automobile with a fan while preventing outside rain and snow from entering (Col 1 lines 6-20).

20. Roethel does not teach a power-generating wind turbine switch cabinet because it teaches a car ventilator. Roethel does not teach at least one power generating wind turbine circuit element coupled to the power generating wind turbine switch cabinet because it does not teach any circuit element that is dried, not the associated light and not the motor. Roethel does not teach a drying arrangement adapted to prevent water deposition onto the at least one power generating wind turbine circuit element because Roethel is removing moisture from a vehicle. Roethel does not

teach a drying arrangement including an air flow device in close proximity to the at least one power-generating wind turbine circuit element or any circuit element or moving past the at least one power-generating wind turbine circuit element or any circuit element to counteract water deposition on the circuit element. Roethel does not teach guiding means for directing the air flow from the air flow generating device past the at least one power generating wind turbine circuit element or any circuit element such as the light or motor. Roethel alone or in combination with Lagerway or Yamac similarly fails to remedy the deficiencies cited above with respect to Claim 13.

21. Streed (US 3,332,620) recites a humidity control device to prevent condensation on the formation on the exterior surfaces of buildings due to cold external temperatures (Col. 1, lines 7-13). As with Roethel, Streed does not teach a power-generating wind turbine switch cabinet. Streed does not teach at least one power generating wind turbine circuit element coupled to the power generating wind turbine switch cabinet. Streed does not teach a drying arrangement adapted to prevent water deposition onto the at least one power generating wind turbine circuit element or any circuit element since it addresses moisture on outer walls of structure. Streed does not teach a drying arrangement including an air flow device in close proximity to the at least one power-generating wind turbine circuit element or moving past the at least one power-generating wind turbine circuit element to counteract water deposition on any circuit element because it addresses moisture on the outside of building. Streed does not teach guiding means for directing the air flow from the air flow generating device past the at least one power generating wind turbine circuit element because it does not address moisture on circuit elements but on walls. Streed alone or in combination with Lagerway, Yamac and Roethel similarly fails to remedy the deficiencies cited above with respect to Claim 13.

II. Claim 14, as amended recites:

“The apparatus of Claim 13, wherein the drying arrangement further comprises:

At last one heating device in close proximity to the at least one power-generating wind turbine circuit element adapted for heating an air passing by the at least one power-generating wind turbine circuit element, wherein the guiding means further directs the air flow from the air flow generating device past the at least one heating device.”

1. Applicant respectfully submits that Lagerway, alone or in combination with Yamac Roethel and/or Streed fails to teach the heating device in close proximity to the at least one power generating wind turbine circuit element. As described with respect to claim 13, the heating element for *heating air* is not in close proximity to the “element”, but external to the compartment with the stator. [Emphasis added]. Lagerway also recites a heating fluid passing within the stator. Here the heating element is not in proximity (definition- being close together) to the stator (circuit element), it is part of the circuit element or is within the circuit element. For reasons stated with respect to claim 13 in great detail, the combination further fails to teach air passing by the circuit element. The combination further fails to teach guiding means directing the air flow from the air flow generating device past the heating device. Neither Yamac, nor Roethel, nor Streed, remedy these deficiencies. Applicant respectfully requests that the rejection of claim 14 be withdrawn and the claim be allowed.

III. Claim 15 recites: “The apparatus of claim 13 or 14, wherein the drying arrangement further comprises:

a cooling element to separate water from air flowing by, the cooling element being spaced apart from the at least one power-generating wind turbine circuit element; and

a drain element to drain the water deposition out of the power-generating wind turbine switch cabinet.”

1. The Office Action rejected claim 15 under 35 U.S.C. §103(a) as being unpatentable over Lagerway in view of Yamac . The Office Action cites Lagerway (Page 6, lines 14-29) as teaching cooling and drain elements. The cited passages, however, fail to recite anything about a drain element. The cited passages also fail to recite anything about a cooling element separating water from the air flowing by. The only cooling element recited is an element within the stator (taken by the Office Action to be the wind turbine circuit element) for cooling the stator and not a cooling element for separating water from the air flowing by as recited in the claim. Yamac fails to remedy these deficiencies. Roethel and Streed also fail to remedy these deficiencies.

2. Because neither Lagerway nor Yamac, nor Streed, alone or in combination, teach or suggest the elements cited above, the rejection of claim 15 under 35 USC 103(a) cannot stand. Applicant respectfully requests that the rejection of claim 15 be withdrawn and the claims allowed.

III. Claim 16 recites:

“The apparatus of Claim 15, wherein the air flow device further generates an air flow circulating within the power-generating wind turbine switch cabinet and the guiding means directs the air flow past the at least one power-generating wind turbine circuit element and the cooling element.”

1. For the reasons cited above in I.2 to 6 above, Applicant respectfully submits that Lagerway, alone or in combination with Yamac, Roethel or Streed fails to teach or suggest the guiding means directs the air flow past the at least one power-generating wind turbine circuit element and the cooling element. Applicant respectfully requests that the rejection of claim 16 under 35 USC 102(a) be withdrawn and the claim be allowed.

IV. Claim 17 recites “The apparatus of claim 15, wherein a Peltier element includes the at least one heating device and the cooling element.” Claim 17 is rejected under 35 U.S.C. §103(a) as being unpatentable over Lagerway in view of Yamac and further in view of Roethel.

1. It is not clear what aspect of Claim 17 that the rejection is addressing, but the Office Action acknowledges that Lagerway and Yamac fail to disclose a cooling element 28 to separate water from air flow by, the cooling element being spaced apart from the at least one circuit element [This appears to be part of claim 15 upon which claim 17 depends] so the response also pertains to claim 15].

2. The Office Action cites Roethel as disclosing a cooling element 28. Element 28 of Roethel is a fan for moving air [Page 2, line 53] and not a cooling element. The Office Action also cites Page 2, line 15 [of Roethel?] but it is unclear to what end. Page 2, line 15 of Roethel cites a barrier in a roof ventilation unit as blocking rainwater from entering the unit. Applicant can see

no relevance in regard to cited cooling unit or to drain.

3. If the above rejection relates to Claim 15, then the combination of cited references fails to disclose the cooling elements and drain elements. If the above rejection relates to Claim 17, then it fails to address the Peltier unit with heating and cooling elements.

4. Because Lagerway, alone or in combination with Yamac and Roethel or Streed fails to teach or suggest all elements of Claim 17 (15), the rejection of claim 17(15) under 35 USC 102(a) cannot stand. Applicant respectfully requests that the rejection of claim 17(15) under 35 USC 102(a) be withdrawn and the claim be allowed.

V. Claims 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lagerway in view of Yamac or Lagerway in view of Yamac and further in view of Roethel. Claims 19-20 recite in part a plate-like flow guidance element. The Office Action makes no reference to “a plate-like” flow guidance element in Lagerway, Yamac, Roethel or Streed. Further, a reading of the preceding references reveals no plate-like guidance element. The Office Action further makes no reference to the structural relationship cited in claims 19 and 20 between the turbine circuit element, the flow guidance element and the peltier element. Because neither Lagerway, Yamac, Roethel or Streed, alone or in combination, teach or suggest the elements cited above, the rejection of Claims 19-20 under 35 USC 103(a) cannot stand. Applicant respectfully requests that the rejection of claims 19-20 be withdrawn and the claims allowed.

VI. Claim 22 recites “The apparatus of claim 13, wherein the at least one power-generating wind turbine circuit element controls an operation of the wind turbine.”

1. Claims 21-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Lagerway in view Yamac in view of Streed (US 3,332,620). Streed recites a humidity control device to prevent condensation on the formation on the exterior surfaces of buildings due to cold external temperatures (Col. 1, lines 7-13). The Office Action makes reference to a “humidity circuit element” of Streed, but does not recite how this humidity element represents a “wind turbine circuit element control[ling] an operation of the wind turbine”. The wind turbine circuit element is the element in the switch cabinet being protected, not the control element (humidity circuit

element) associated with protecting the wind turbine circuit element. Because neither Lagerway, Yamac, nor Streed, alone or in combination, teach or suggest the elements cited above, the rejection of Claims 19-20 under 35 USC 103(a) cannot stand. Applicant respectfully requests that the rejection of claims 19-20 be withdrawn and the claims allowed.

VII. Claim 23, as amended, recites:

“controlling an operational parameter of a power-generating wind turbine by at least one power-generating wind turbine circuit element coupled to a power-generating wind turbine switch cabinet;

generating an airflow in the internal space of the power-generating wind turbine switch cabinet flowing past the at least one power-generating wind turbine circuit element using an air flow generating device to counteract a deposition of condensation water onto the at least one power-generating wind turbine circuit element; and

guiding the generated airflow past the at least one power-generating wind turbine circuit element by guiding means.”

1. The Office Action asserts that Lagerway discloses the limitation “controlling an operational parameter of a power-generating wind turbine by at least one power-generating wind turbine circuit element coupled to a power-generating wind turbine switch cabinet” of claim 23, citing Page 9, lines 3-34. The operational parameters cited in the passage may be controlled through switch elements but nowhere does Lagerway disclose that these switch elements are in switch cabinets provided with any drying arrangement or air flow arrangement. The switch cabinet that houses the stator winding does not control an operational parameter. The switch cabinet disclosed in the present application is a static circuit element (stator winding). Based on the above, Lagerway fails to disclose the “controlling” element of the claim 23.

2. For the reasons cited above with respect to Claim 13, Lagerway does not teach generating an airflow in the internal space of the power-generating wind turbine switch cabinet *flowing past the at least one power-generating wind turbine circuit element* using an air flow generating device to counteract a deposition of condensation water onto the at least one power-generating wind

turbine circuit element [Emphasis added].

3. The Office Action cites Lagerway Page 9 line 35 to Page 10, line 28 as teaching “generating an airflow in the internal space of the power-generating wind turbine (pgwt) switch cabinet flowing past the at least one power-generating wind turbine circuit element using an air flow generating device to counteract a deposition of condensation water onto the at least one power-generating wind turbine circuit element;”. The referenced passage relates to FIG. 8. FIG. 8 illustrates an alternate arrangement for an air channel 56 (not shown but like reference number 56 of FIG. 1) associated with the heat exchanger for cooling the stator windings with a medium other than the airflow passing through channel 56. The air channel 56: 1) does not flow in the internal space of the pgwt switch cabinet, 2) does not flow past the pgwt circuit element, and does not 3) use an air flow generating device to counteract deposition of condensation water onto the pgwt circuit element.

See Page 10, lines 1-3 that discloses seals 26, 58 on generator chamber 46 (which keep the generator chamber sealed and isolated from air in heat exchanger path of FIG. 8).

4. The description of FIG. 7 on page 10 lines 11-28 does nothing to remedy the deficiency. The passage discloses that an overpressure is created in the generator chamber 46 but as previously stated with respect to claim 13, there is no disclosure that the flow is past the pgwt circuit element and in fact the diagram teaches away from that conclusion by showing the entrance and exit for the air flow in proximity to each other.

5. Providing an overpressure in a chamber as is done by Lagerway is not the same as flowing the airflow past the circuit. Such overpressure, does not provide the same effect as a direct flow past the circuit element. Similarly, Lagerway does not teach guiding the generated airflow past the at least one power turbine circuit element by guiding means. As previously described with respect to Claim 13, Lagerway does no guiding within the chamber and the airflow is not over the circuit element, but according to FIG. 7 likely exits the chamber near the entrance. Whereas the present invention enhances the absorptive effect of a directed air flow on moisture in the cabinet by a guiding means, Lagerway does not and is therefore not efficient, resulting in a larger consumption of energy, as previously described.

6. Because as described above Lagerway in combination with Yamac does not teach or suggest each and every element of Claim 23, the rejection under 35 USC 103(a) must be withdrawn and Claim 23 be allowed. Further, for the reasons cited with respect to Claim 13, neither Roethel nor Streed acting alone or in combination with Lagerway or Yamac remedies those deficiencies.

7. Given that claims 24-28 depend from independent claim 23, which is patentable as discussed above, Applicant respectfully submits that dependent claims 24-28 are also patentable over the cited references. Accordingly, Applicant requests that the rejection of claims 24-28 under 35 USC §103(a) be withdrawn. Applicant submits that claims 23-28 are in condition for allowance and such action is respectfully requested.

VIII. Claim 24, as amended, recites:

“guiding the generated airflow past a heating device by guiding means;  
heating an air in close proximity to the at least one power-generating wind turbine circuit element; and  
guiding the heated airflow past the at least one power-generating wind turbine circuit element by guiding means.”

1. As described above with respect to Claim 13, Lagerway does not teach guiding the generated airflow past a heating device by guiding means or a guiding means. Lagerway does not teach heating an air in close proximity to the circuit. Further Lagerway does not teach guiding the generated airflow past the circuit element. The above elements of the present invention all advantageously counteract the deposition of moisture on the circuit element and are not taught by Lagerway.

2. Because Lagerway does not teach each and every element of Claim 24, Applicant respectfully requests that the rejection of Claim 24 under 35 USC 103(a) be withdrawn and the claim allowed. Further for the reasons cited above, neither Roethel nor Streed alone or in combination with Lagerway teaches each and every element of Claim 24.

#### RESPONSE TO ANALOGOUS ART

Applicant believes the Office Action has cited not only art from non-analogous fields not in the



field of applicants' endeavor, but also not reasonably pertinent to the particular problem with which the applicant was concerned.

1. Yamac addresses the problem of hair drying. This is not in an analogous field to the present invention and is also not pertinent to the problem with which the applicant was concerned (moisture on electrical circuits). There is no discussion of moisture on electrical circuits in Yamac and no structure asserted or implied that addresses the problem of moisture on circuitry.
2. Roethel addresses moisture in a motor vehicle and removal therefrom. This is not in an analogous field and is also not pertinent to the problem with which the applicant was concerned (moisture on electrical circuits). There is no discussion of moisture on electrical circuits in Roethel and no structure asserted or implied that addresses the problem of moisture on circuitry.
3. Streed addresses moisture formation on the walls of a building. This is not an analogous field and also is not pertinent to the problem with which the applicant was concerned (moisture on electrical circuits). There is no discussion of moisture on electrical circuits in Streed and no structure asserted or implied that addresses the problem of moisture on circuitry.

## J. CLAIMS APPENDIX

The Claims involved in this Appeal are as follows:

1-12 Cancelled

13. An apparatus, comprising:

a power-generating wind turbine switch cabinet;

at least one power-generating wind turbine circuit element coupled to the power-generating wind turbine switch cabinet;

a drying arrangement adapted to prevent water deposition onto the at least one power-generating wind turbine circuit element, the drying arrangement including an air flow device in close proximity to the at least one power-generating wind turbine circuit element and generating an air flow moving past the at least one power-generating wind turbine circuit element to counteract the water deposition onto the at least one power-generating wind turbine circuit element; and

guiding means directing the air flow from the air flow generating device past the at least one power-generating wind turbine circuit element.

14. The apparatus of claim 13, wherein the drying arrangement further comprises:

at least one heating device in close proximity to the at least one power-generating wind turbine circuit element adapted to heat an air passing by the at least one power-generating wind turbine circuit element, wherein the guiding means further directs the air flow from the air flow generating device past the at least one heating device.

15. The apparatus of claim 13 or 14, wherein the drying arrangement further comprises:

a cooling element to separate water from air flowing by, the cooling element being spaced apart from the at least one power-generating wind turbine circuit element; and

a drain element to drain the water deposition out of the power-generating wind turbine switch cabinet.

16. The apparatus of claim 15, wherein the air flow device further generates an air flow circulating within the power-generating wind turbine switch cabinet and the guiding means directs the air flow past the at least one power-generating wind turbine circuit element and the cooling element.

17. The apparatus of claim 15, wherein a Peltier element includes the at least one heating device and the cooling element.

18. The apparatus of claim 16, wherein a Peltier element includes the at least one heating device and the cooling element.

19. The apparatus of claim 17, further comprising:

a plate-like flow guidance element interspersed with the Peltier element, and wherein the at least one power-generating wind turbine circuit element is disposed at a side of the flow guidance element to face a warmer part of the Peltier element.

20. The apparatus of claim 18, further comprising:

a plate-like flow guidance element interspersed with the Peltier element, and wherein the

at least one power-generating wind turbine circuit element is disposed at a side of the flow guidance element to face a warmer part of the Peltier element.

21. The apparatus of claim 13, further comprising:

a control device to control the drying arrangement depending on temperature or humidity within or outside the power-generating wind turbine switch cabinet.

22. The apparatus of claim 13, wherein the at least one power-generating wind turbine circuit element controls an operation of the wind turbine.

23. A method comprising:

controlling an operational parameter of a power-generating wind turbine by at least one power-generating wind turbine circuit element coupled to a power-generating wind turbine switch cabinet;

generating an airflow in the internal space of the power-generating wind turbine switch cabinet flowing past the at least one power-generating wind turbine circuit element using an air flow generating device to counteract a deposition of condensation water onto the at least one power-generating wind turbine circuit element; and

guiding the generated airflow past the at least one power-generating wind turbine circuit element by guiding means.

24. The method of claim 23, further comprising:

guiding the generated airflow past a heating device by guiding means;

heating an air in a region of the at least one power-generating wind turbine circuit element; and

guiding the generated airflow past the at least one power-generating wind turbine circuit element by guiding means.

25. The method of claim 23 or 24, further comprising:

separating water from the airflow at a cooling element, the cooling element spaced apart from the at least one power-generating wind turbine circuit element; and

draining the condensation water out of the switch cabinet by a drain element.

26. The method of claim 24, further comprising:

heating the air by the Peltier element, which is also used as a cooling element.

27. The method of claim 25, further comprising:

heating the air by the Peltier element, which is also used as a cooling element.

28. The method of claim 25, further comprising:

generating the airflow, heating the air, and activating the cooling element depending on temperature or humidity within or outside the power-generating wind turbine switch cabinet.

K. EVIDENCE APPENDIX

NONE

L. RELATED PROCEEDINGS APPENDIX

1. European Patent Office Decision- January 28, 2010 (Pg 33-51)
2. Minutes of Oral Proceedings Before EPC- January 28, 2010 (Pg 52-66)



European Patent Office  
80298 MUNICH  
GERMANY  
Tel: +49 89 2399 0  
Fax: +49 89 2399 4465



Zimmermann & Partner  
Postfach 330 920  
80069 München  
ALLEMAGNE

**Formalities Officer**  
Name: Alders-Meewis, A  
Tel: +49 89 2399 - 7740  
or call  
+31 (0)70 340 45 00

Application No. / Patent No. 03 750 628.4 - 2315 / 1546553 /	Ref. 11123E-EP	Date 28.01.2010
Proprietor GENERAL ELECTRIC COMPANY		

**Decision revoking the European Patent (Art. 101(3)(b) EPC)**

The Opposition Division - at the oral proceedings dated 30.11.2009 - has decided:

**European Patent No. EP-B- 1546553 is revoked.**

The reasons for the decision are enclosed.

**Possibility of appeal**

This decision is open to appeal. Attention is drawn to the attached text of Articles 106 to 108 and Rules 97 to 98 EPC.

**Opposition Division:**



**Chairman:** Thomas, Daniel  
**2nd Examiner:** Morrish, Susan  
**1st Examiner:** Pinna, Stefano



**Alders-Meewis, A**  
**Formalities Officer**  
Tel. No.: +49 89 2399-4461

Enclosure(s): 10 page(s) reasons for the decision (Form 2916)  
Wording of Articles 106 - 108 and Rules 97-98 EPC (Form 2019)  
Minutes of oral proceedings  
main request, first and second auxiliary requests  
to EPO postal service: 25.01.10

### **Facts and submissions**

1. European Patent No. EP1546553 (later: the opposed patent) was granted on the basis of the European Patent Application 03750628.4 filed on 25.09.2003. Notice of the grant of the Patent was given on in the European Bulletin 2006/32 on 09.08.2006.
2. The proprietor of the Patent (PI) is the GENERAL ELECTRIC COMPANY, 1 River Road Schenectady, NY 12345 / US
3. Woodward SEG GmbH & Co. KG (opponent 1, O1) gave notice of opposition on 09.05.2007 to the European Patent granted.
4. The opponent 1 requests the revocation of the patent in its entirety on the ground that the subject-matter of the patent lacks novelty and inventive step (Article 100(a) EPC);
5. The opponent 1 cites the following documents as state of the art:

D1: Fachbuch 'Schaltschrank- und Gehäuse-Klimatisierung in der Praxis mit EMVU, Teil II, Gottfried Klingberg, 1996,, ISBN 3-923270-07.0, Seiten 103 bis 250

D2: DE20000715U1

D3: Auftragsbestätigung vom 22. Januar 2001, AuftragsNr: CL0-36-00U

D4: Auszug aus der Stückliste zur KommissionsNr: CL3-36-00U, Seiten 1 bis 4

D5: Zeichnung des Schaltschranks CLO-36-00U

D6: Inbetriebnahmeprotokoll der CL3-36-00U

D7: Auftragsbestätigung vom 10. April 2001, AuftragsNr:CG0-13-01U

D8: Rechnung zur AuftragsNr CG1-13-01U

D9: Auszug aus Stückliste zur KommissionsNr CG3-13-01U, Seiten 1 bis 5

D10: Zeichnung Innenaufbau der CW1500ZE vom 10.08.2000

Further, O1 cites two witnesses who should confirm the prior uses:

Mr. Ludger Rupp (O1.D3-O1-D5)

Mr. Holger Renkes (O1.D6-O1-D10)

6. Vestas Wind Systems A/S (opponent 2, O2) gave notice of opposition on 09.05.2007 to the European Patent granted.

7. The opponent 2 requests the revocation of the patent in its entirety on the ground that the subject-matter of the patent lacks novelty and inventive step (Article 100(a) EPC);

8. The opponent 2 cites the following documents as state of the art:

O2.E1: US patent no. 4,586,342 (Nissan Electric), published 6 May 1986  
O2.E2: International patent application no. WO-A 01/88441, (Raytheon), published 22 November 2001  
O2.E3: US patent no. 4,279,292, (USA), published 21 July 1981  
O2.E4: US patent no. 5,504,924 (Hitachi), published 2 April 1996  
O2.E5: US patent no. 5,579,217 (Kenetech Windpower), published 26 November 1996  
O2.E6: "GMP's Searsburg Wind Power Facility Nears Completion", Wind Power News, Volume 3, Issue 1, published March 1997  
O2.E7: "Middelgrunden, the project", A newsletter for customers and business associates of BONUS Energy A/S, front page and page 36, published 1 July 2001

9. NORDEX ENERGY GmbH (opponent 3, O3) gave notice of opposition on 09.05.2007 to the European Patent granted.

10. O3 requests the revocation of the patent in its entirety on the ground that the subject-matter of the patent lacks novelty and inventive step (Article 100(a) EPC);

11. O3 cites the following documents as state of the art:

O3.E1: DE19641552C1  
O3.E2: DE20000715U1  
O3.E3: DE4228521A1  
O3.E4: DE 10139556A1  
O3.E5: WO 02/086313 A1  
O3.E6: Übergabeprotokoll  
O3.E7.1 bis E7.9: Stromlaufplan einer Windenergieanlage vom Typ Nordex N43 hcv  
O3.E8: Bedienungsanleitung Windenergieanlage Nordex N43 hcv  
O3.E9: Foto von einem geöffneten Schaltschrank  
O3.E10: Auszüge aus dem Fachbuch „Schaltschrank-Klimatisierung: Grundlagen, Komponenten, Anwendungen“ von Heinrich Styppa  
O3.E11: Auszüge aus dem Fachbuch „Schaltschrank- und Gehäuse-Klimatisierung“ von Gottfried Klingberg  
O3.E12: Internet-Recherche

Further, O3 cites one witness who should confirm the facts presented in E6-E11:  
Mr. Ibrahim Özarslan

12. Auxiliary, all opponents O1-O3 request oral proceedings.
13. The patent proprietor reacts to the notices of opposition with letter dated 15.10.2007 as follows.  
The patent proprietor (PI) requests the rejection of both oppositions and the maintenance of the patent in amended form based on claims 1-12 submitted with his letter.  
Auxiliary PI requests oral proceedings.  
Further he submits the following document:  
P1: "Vertragsgestaltung"
14. O3 reacts on 18.03.2008 to the requests of PI as follows.  
O3 considers that the claims filed on 15.10.2007 are unclear and do not change the scope of protection of the granted patent. Further, they do not involve an inventive step.  
O3 cites the following;  
O3.E12: Internet-Recherche
15. On 02.06.2009 the opposition division invites the parties to oral proceedings and gives its provisional opinion on the case.
16. On 29.10.2009 O1 reacts to the requests of PI as follows.  
O1 considers that the claims filed on 15.10.2007 are unclear (Article 84 EPC) and might be offending against Article 123(2) EPC. Further, they are not new and do not involve an inventive step.
17. With letter dated 30.10.2009 PI submits a main request which corresponds to the request filed on 15.10.2007 and 2 auxiliary requests.
18. On 25.11.2009 O1 submits document D11 (WO03014629) and provides arguments that D11 would be novelty destroying for the main request as well as for the auxiliary requests 1 and 2.
19. On 26.11.2009 O2 requests a postponement of the oral proceedings to be held on 30.11.2009.

20. On 27.11.2009 the opposition division informs the parties that the postponement request dated 26.11.2009 cannot be granted.

21 Oral proceedings take place on 30.11.2009.

22. Independent claim 1 of the granted patent recites:

A switch cabinet (10) for a wind turbine with at least one circuit element (20) accommodated in said switch cabinet (10) and a drying arrangement for preventing a water deposition onto the at least one circuit element (20), characterized in that the drying arrangement comprises a device (30) for generating an air flow in a region of the at least one circuit element (20).

23. Independent claim 8 of the granted patent recites:

A method for operating a wind turbine, wherein at least one operational parameter of the wind turbine is controlled by at least one circuit element (20) accommodated in a switch cabinet (10) and wherein the deposition of condensation water onto said at least one circuit element (20) is counteracted, characterized in that an air flow is generated in the internal space of the switch cabinet (10) in the region of the at least one circuit element (20) for preventing the deposition of water onto the at least one circuit element (20).

24. The claims according to the requests of PI are attached to the present decision.

### **Reasons for the decision**

25. Admissibility

The admissibility of the opposition has not been challenged. The opposition meets the requirements of Art. 99(1) and 100 EPC and of Rules 1(1) and 76 EPC, and therefore is admissible.

26. Late filed documents

D11 is an international publication according to the PCT, filed on 01.07.2002,

published on 20.02.2003 and claiming the priority date of 10.08.2001.

It is therefore a prior art document according to Article 54(3) EPC, since evidence has been provided that the above mentioned PCT application entered the European phase.

D11 discloses (see abstract, description page 1 lines 1-3 and figures) a wind energy installation with means for dehumidifying a gaseous medium inside an enclosed chamber.

PI requested that the document should not be admitted since it does not disclose a switch cabinet.

Even if the "enclosed chamber" named in D11 is not exactly a switch cabinet, it could be at least compared to a switch cabinet. Further, since D11 deals with the same kind of installation as the opposed patent, D11 is admitted in the proceedings as it is prima facie relevant for the present case.

## 27. Prior uses

The public prior uses submitted by opponent 1 (documents O1.D3-O1.D5 and O1.D6-O1.D10 filed by opponent 1) are not sufficiently substantiated. In particular, the last pages of O1.D3 and O1.D7 make reference to a framework contract ("Rahmenvertrag"). The corresponding framework contract has, however, not been provided. The opposition division shares the view of the patent proprietor that normally a framework contract includes a non-disclosure agreement (also see at this regard page 7 of the document "Vertragsgestaltung", P1, filed by the patent proprietor).

The public prior use submitted by opponent 3 (documents O3.E3-O3.E9 filed by opponent 3) is not sufficiently substantiated. In particular, O3.E6 has an handwritten note stating that "this agreement is not considered at any case as a take over certificate".

In view of this the opposition division shares the view of the patent proprietor that it is not possible to state that the wind park lots in question were made available to the public before the priority date of the attacked patent.

Hence it is neither considered necessary nor useful to hear the witnesses.

In this regard the attention is drawn to the two following decisions of the board of appeal:

T241/99: a witness cannot supplement during OP information which should have been filed during the opposition period.

T1156/05: the purpose of hearing of a witness is not to investigate facts relating to a public prior use.

It is merely to confirm what has been submitted previously in writing.

28. Clarity of the wording "wind turbine switch cabinet".

According to the EPC a claim should be read by a mind willing to understand its meaning.

The wording "wind turbine switch cabinet" excludes a switch cabinet for something else than a wind turbine.

The opposition division is of the opinion that the wording "wind turbine switch cabinet" is clear and limited with respect to the wording "switch cabinet for a wind turbine".

A discussion about article 84 does therefore not appear appropriate.

Claim 1 of the main request is considered as fulfilling the requirements of Article 84 EPC.

Further, the attacked patent clearly and unambiguously discloses a wind turbine switch cabinet so that also articles 123 (2) and (3) are met.

The parties agreed on that.

29. Main request

29.1 Novelty with regard to D11

D11 does not give any details on how the enclosed chamber is made and what exactly it contains.

Therefore the enclosed chamber of D11 cannot be considered a switch cabinet.

Furthermore, in D11 it is clear that the dehumidifier is near to the switching element (Stromrichter) but not necessarily inside the enclosed chamber.

Since both independent claims 1 and 8 contain a switch cabinet, the subject matter of these claims is new over D11.

29.2 Novelty with regard to O2.E6

O2.E6 discloses

A wind turbine switch cabinet with at least one circuit element (page 6 col. 3, lines 19-20 "electronic components") for controlling at least one operational parameter of the wind turbine accommodated in said switch cabinet and a drying arrangement ("heater") for preventing a water deposition onto the at least one circuit element, wherein the drying arrangement comprises a device (heater) for generating an air flow in a region of the at least one circuit element.  
See O2E6, page 6, col. 3.

Note 1: the heater heats up the air within the switch cabinet. As a consequence convection motion must take place (even at a very low intensity), within the cabinet, thus also in a region of the at least one circuit element (see at this regard D1 page 217, last paragraph).

Note 2: the "region of the at least one circuit element" is not further defined in claim 1. Thus any region of the cabinet (even the whole cabinet) containing somewhere a circuit element falls within the scope of the claim.

### 30. Auxiliary request 1

#### 30.1 Admissibility

After appropriate renumbering of the claims, aux. request 1 is admissible.  
Admissibility has not been challenged by the opponents.

#### 30.2 Novelty

All parties agree that claim 1 is new since none of the cited documents discloses a cooling element and a drain element.

#### 30.3 Inventive step with regard to O2.E6 and O2.E2

O2.E6 is considered to be the closest prior art to the subject-matter of claim 1 and discloses (the references in parentheses applying to this document):

A wind turbine switch cabinet with at least one circuit element (page 6 col. 3, lines 19-20 "electronic components") for controlling at least one operational parameter of the wind turbine accommodated in said switch cabinet and a drying arrangement for preventing a water deposition



onto the at least one circuit element, wherein  
the drying arrangement comprises:

- (a) a device ("heater") for generating an air flow in a region of the at least one circuit element.
- (b) at least one heating device ("heater") for heating the air in the neighbourhood of the at least one circuit element.

See O2.E6 page 6 col. 3.

The subject-matter of claim 1 therefore differs from this known wind turbine switch cabinet in that it further comprises:

- (c) a cooling element (36; 136) for separating water from air flowing by, said cooling element being spaced from said at least one circuit element (20). as well as
- (d) at least one drain element (38, 40) for draining the separated water out of the switch cabinet (10).

The problem to be solved by the present invention may therefore be regarded as to enhance moisture reduction in a closed room.

The solution proposed in claim 1 of the present application cannot be considered to involve an inventive step (Articles 52(1) and 56 EPC), for the following reasons:

Features c and d are described in document O2.E2 (see abstract, page 1 lines 21-25, page 2, lines 2-7, page 5, lines 26-30, page 6 lines 14-15, claim 1 lines 4-5 and figure 3) as providing the same advantages as in the present application. The skilled person would therefore regard it as a normal design option to include these features (c, d) in the wind turbine switch cabinet described in document O2E6 in order to solve the problem posed.

Notes:

O2E2, page 6 lines 14-15:

Cooling element: 108

drain element: 116

O2E6 clearly states that moisture and condensation are a source of concern (page 6 lines 12-30) and that they should be reduced.

On the other side O2E2 explicitly mentions that heating alone is not optimal for

humidity reduction (page 1, lines 21-24) and that using a cooler and a drain element is therefore appropriate (abstract and page 2 lines 2-7).

O2E2 is suitable for "other enclosures in which it is desirable to reduce relative humidity", see page 2 lines 4-5.

Finally, claim 1 of O2.E2 gives details on how the dehumidifier is built up, using a Peltier element.

#### 30.4 Inventive step with regard to O2.E6 and D2

Starting from O2E6 the problem to be solved is again :  
to enhance moisture reduction in a closed room.

The solution proposed in claim 1 of the present application cannot be considered to involve an inventive step (Articles 52(1) and 56 EPC), for the following reasons:

D2 discloses feature c (a cooling element (10)) and feature d (a drain element), see page 7 lines 10-13, and figure 1.

These features c, d are described in document D2 (see abstract, page 1 line 1 page 2 line 3 and figure 1) as providing the same advantages (effective moisture reduction) as in the present application. The skilled person would therefore regard it as a normal design option to include these features (c, d) in the wind turbine switch cabinet described in document O2E6 in order to solve the problem posed.

#### 31. Auxiliary request 2, Article 123(2) EPC

Auxiliary request 2 corresponds to auxiliary request 1 with the addition of the following:

the drying arrangement is adapted for heating the air by the at least one heating device (32, 132) and, simultaneously, drying of the switch cabinet by condensation of air humidity at the cooling element (36: 136) and draining of the condensation water by means of the at least one drain element (38, 40).

The base for this statement is in the description, col. 4 lines 15-26, in particular 21-26.

However, the term "continuous", present in the description col. 4 lines 21-22 is not present in the claim.

The deletion of "continuous" is therefore to be considered as an intermediate generalization of the features disclosed in col. 4 lines 21-22, thus offending against Article 123(2) EPC.

The originally filed application (see the cited passage) foresees that drying is performed only in a continuous manner.

This word has a technical meaning which influences the functioning of the drying arrangement. The mere presence of a verb in its continuous form (drying) does not imply that the "drying by condensation of air humidity" is performed in a continuous way. In fact the claim could for example also recite "occasionally drying by condensation of air humidity if the circumstances so require".

The verb would be still in its continuous form, but the drying would be performed only occasionally.

Therefore claim 1 of auxiliary request 1 does meet the requirements of article 123 (2) EPC.

32. Since there is no text according to which the patent could be maintained in amended form, the patent has to be revoked.

**Article 106**  
**Decisions subject to appeal**

- (1) An appeal shall lie from decisions of the Receiving Section, Examining Divisions, Opposition Divisions and the Legal Division. It shall have suspensive effect.
- (2) A decision which does not terminate proceedings as regards one of the parties can only be appealed together with the final decision, unless the decision allows a separate appeal.
- (3) The right to file an appeal against decisions relating to the apportionment or fixing of costs in opposition proceedings may be restricted in the Implementing Regulations.

**Rule 97**  
**Appeal against apportionment and fixing of costs**

- (1) The apportionment of costs of opposition proceedings cannot be the sole subject of an appeal.
- (2) A decision fixing the amount of costs of opposition proceedings cannot be appealed unless the amount exceeds that of the fee for appeal.

**Rule 98**  
**Surrender or lapse of the patent**

The decision of an Opposition Division may be appealed even if the European patent has been surrendered in all the designated Contracting States or has lapsed in all those States.

**Article 107**  
**Persons entitled to appeal and to be parties to appeal proceedings**

Any party to proceedings adversely affected by a decision may appeal. Any other parties to the proceedings shall be parties to the appeal proceedings as of right.

**Article 108**  
**Time limit and form**

Notice of appeal shall be filed in accordance with the Implementation Regulations, at the European Patent Office within **two months** of notification of the decision. Notice of appeal shall not be deemed to have been filed until the fee for appeal has been paid. Within **four months** of notification of the decision, a statement setting out the grounds of appeal shall be filed in accordance with the Implementing Regulations.

**Further information concerning the filing of an appeal**

- (a) The appeal is to be filed with the European Patent Office either at its seat in Munich, at its branch at The Hague or at its Berlin sub-office. The postal addresses are as follows:

(i) European Patent Office  
80298 MUNICH  
GERMANY

(ii) European Patent Office  
Postbus 5818  
2280 HV Rijswijk  
NETHERLANDS

(iii) European Patent Office  
10958 BERLIN  
GERMANY

Fax: +49 89 2399-4465

Fax: +31 70 340-3016

Fax: +49 30 259 01-840

- (b) The notice of appeal must contain the name and address of the appellant in accordance with the provisions of Rule 41(2)(c) EPC, an indication of the decision impugned, and a request defining the subject of the appeal. In the statement of grounds of appeal the appellant shall indicate the reasons for setting aside the decision impugned, or the extent to which it is to be amended, and the facts and evidence on which the appeal is based (R. 99(1) and (2) EPC). The notice of appeal and any subsequent submissions stating the grounds for appeal must be signed (R. 50(3) EPC).

- (c) Notice of appeal can be filed in accordance with Rule 1 and Rule 2(1) EPC, by delivery by hand, by post, or by technical means of communication. The filing has to comply with the details and conditions and, where appropriate, any special formal or technical requirements laid down by the President of the European Patent Office (R. 99(3) EPC).
- (d) The fee for appeal is laid down in the Rules relating to Fees. The schedule of fees and expenses of the EPO or a reference to the current version is regularly published in the Official Journal of the European Patent Office under the heading "Guidance for the payment of fees, expenses and prices". It is also published on the EPO Internet page under <http://www.epo.org/Patents/Grant-procedure/Filing-an-application/costs-and-fees.html>.

**Main request: Claims as presently on file**

11123E-EP

*For information only, the independent claims of the main request are:*

1. A wind turbine switch cabinet (10) with  
  
at least one circuit element (20) for controlling at least one operational parameter of the wind turbine accommodated in said switch cabinet (10) and  
  
a drying arrangement for preventing a water deposition onto the at least one circuit element (20), characterized in that  
  
the drying arrangement comprises a device (30) for generating an air flow in a region of the at least one circuit element (20).
  
8. A method for operating a wind turbine, wherein  
  
at least one operational parameter of the wind turbine is controlled by at least one circuit element (20) accommodated in a switch cabinet (10) and wherein  
  
the deposition of condensation water onto said at least one circuit element (20) is counteracted, characterized in that  
  
an air flow is generated in the internal space of the switch cabinet (10) in the region of the at least one circuit element (20) for preventing the deposition of water onto the at least one circuit element (20).

*The main request also includes the dependent claims as presently on file.*

- 2 -

**First auxiliary request:***Amendments with respect to the main request are highlighted.*

1. A wind turbine switch cabinet (10) with  
  
at least one circuit element (20) for controlling at least one operational parameter of the wind turbine accommodated in said switch cabinet (10) and  
  
a drying arrangement for preventing a water deposition onto the at least one circuit element (20), characterized in that  
  
the drying arrangement comprises:

- (a) a device (30) for generating an air flow in a region of the at least one circuit element (20),
- (b) at least one heating device (32; 132) for heating the air in the neighborhood of the at least one circuit element (20), and
- (c) a cooling element (36; 136) for separating water from air flowing by, said cooling element being spaced from said at least one circuit element (20), as well as
- (d) at least one drain element (38, 40) for draining the separated water out of the switch cabinet (10).

*Dependent claims 4 to 7: As presently on file*

- 3 -

8. A method for operating a wind turbine, wherein

at least one operational parameter of the wind turbine is controlled by at least one circuit element (20) accommodated in a switch cabinet (10) and wherein

the deposition of condensation water onto said at least one circuit element (20) is counteracted, characterized in that

an air flow is generated in the internal space of the switch cabinet (10) in the region of the at least one circuit element (20) for preventing the deposition of water onto the at least one circuit element (20), further characterized in that

the air in the region of the at least one circuit element is heated, and in that

condensation water is separated at a cooling element (36; 136) spaced from said at least one circuit element (20) and is drained out of the switch cabinet (10).

*Dependent claims 11 to 12: As presently on file*



- 4 -

**Second auxiliary request:**

1. A wind turbine switch cabinet (10) with

at least one circuit element (20) for controlling at least one operational parameter of the wind turbine accommodated in said switch cabinet (10) and

a drying arrangement for preventing a water deposition onto the at least one circuit element (20), characterized in that

the drying arrangement comprises:

(a) a device (30) for generating an air flow in a region of the at least one circuit element (20),

(b) at least one heating device (32; 132) for heating the air in the neighborhood of the at least one circuit element (20), and

(c) a cooling element (36; 136) for separating water from air flowing by, said cooling element being spaced from said at least one circuit element (20), as well as

(d) at least one drain element (38; 40) for draining the separated water out of the switch cabinet (10), wherein

the drying arrangement is adapted for heating the air by the at least one heating device (32; 132) and, simultaneously, drying of the switch cabinet by condensation of air humidity at the cooling element (36; 136) and draining of the condensation water by means of the at least one drain element (38; 40).

*Dependent claims 4 to 7: As presently on file*

- 5 -

8. A method for operating a wind turbine, wherein

at least one operational parameter of the wind turbine is controlled by at least one circuit element (20) accommodated in a switch cabinet (10) and wherein

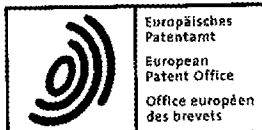
the deposition of condensation water onto said at least one circuit element (20) is counteracted, characterized in that

an air flow is generated in the internal space of the switch cabinet (10) in the region of the at least one circuit element (20) for preventing the deposition of water onto the at least one circuit element (20), further characterized in that

the air in the region of the at least one circuit element is heated, and in that

simultaneously with the heating, condensation water is separated at a cooling element (36; 136) spaced from said at least one circuit element (20) and is drained out of the switch cabinet (10).

*Dependent claims 11 to 12: As presently on file*



European Patent Office  
80298 MUNICH  
GERMANY  
Tel: +49 89 2399 0  
Fax: +49 89 2399 4465



Zimmermann & Partner  
Postfach 330 920  
80069 München  
ALLEMAGNE

**Formalities Officer**  
Name: Alders-Meewis, A  
Tel: +49 89 2399 - 7740  
or call  
+31 (0)70 340 45 00

Application No. / Patent No. 03 750 628.4 - 2315 / 1546553 /	Ref. 11123E-EP	Date 28.01.2010
Proprietor GENERAL ELECTRIC COMPANY		

**Provision of a copy of the minutes in accordance with Rule 124(4) EPC**

The attached copy of the minutes of the oral proceedings is sent to you in accordance with Rule 124(4) EPC.



Alders-Meewis, A  
**Formalities Officer**  
Tel. No.: +49 89 2399 - 4461

Enclosure(s):      Copy of the minutes (Form 2309)

Application No.:

03 750 628.4

Patent No.:

EP-B-1546553

## Minutes of the oral proceedings before the OPPOSITION DIVISION

The proceedings were public.

**Proceedings opened** on 30.11.2009 at 09:00 hours

### **Present as members of the opposition division:**

Chairman:	Thomas, Daniel
1st member:	Pinna, Stefano
2nd member:	Morrish, Susan
Minute writer:	Morrish, Susan

### **Present as or for the party or parties:**

- For the Proprietor(s): GENERAL ELECTRIC COMPANY  
Gerd Zimmermann (representative)  
Dominique Gobert  
Stefan Rieken  
Francisco Javier Rubio Sierra
- For the Opponent 1: Woodward SEG GmbH & Co. KG  
Arnd Ziebell (representative)  
Lars Kock
- For the Opponent 2: Vestas Wind Systems A/S  
Wolfgang Lippich (representative)  
Jean-François Cases, Frank Meyer-Wildhagen
- For the Opponent 3: NORDEX ENERGY GmbH  
Richard Werner (representative)  
Annett Müller

The identity of the person/s (as well as, if applicable, that of the witness or witnesses) and, where necessary, the authorisation to represent/authority to act were checked.

Essentials of the discussion and possible relevant statements of the parties:

### Annex to the Minutes of Oral Proceedings

- 1 The Chairman opened the proceedings at 09:09 and introduced the Opposition Division.
- 2 The Chairman requested the names of the representatives from all parties present and then any objections from the parties to the presence of the accompanying persons: whereby none of the parties raised objections to the presence of any of the accompanying persons.
- 3 The following parties will be referred to throughout these minutes:  
Opponent (1) - Woodward SEG  
Opponent (2) - Vestas  
Opponent (3) - Nordex
- 4 During the Oral Proceedings, the following documents were referred to:  
**D1:** "Schaltschrank- und Gehäuse-Klimatisierung in der Praxis mit EMV"  
**D2:** DE-U-200 00 715  
**D11:** WO-A-03/014629  
**E1:** US-A-4 586 342  
**E2:** WO-A-01/88441  
**E3:** DT-OS 2 214 702  
**E6:** Wind Power News - GMP's Searsburg Wind Power Facility Nears Completion.  
**E7:** Middelgrunden Offshore - The Project
- 5 The parties stated their requests as follows:  
Patentee's main request - rejection of all opposition grounds and maintenance of the patent in amended form (as filed on 16.10.2007 - see Annex 1).  
Patentee's first and second auxiliary requests - maintenance of the patent in amended form (as filed on 30.10.2009 - see Annex 2).  
Opponent (1) main request - revocation of the patent due to lack of novelty and/or inventive step, including two incidences of public prior use (**Art.100(a) EPC**) with respect to the Patentee's main and auxiliary requests. In addition, Opponent (1) requested the admissibility of D11 in response to the Patentee's amendments to the granted claims.  
Opponent (2) main request - revocation of the patent due to lack of novelty and/or inventive step (**Art.100(a) EPC**) with respect to the Patentee's main and auxiliary requests. Opponent (2) also confirmed that the request for postponement of the oral proceedings was withdrawn.  
Opponent (3) main request - revocation of the patent due to lack of novelty and/or inventive step, including a public prior use (**Art.100(a) EPC**).

- 6 The Chairman's opening comments were addressed to the admissibility of document **D11**, the allowability of the Patentee's requests with respect to the lack of an adapted description and the claim numbering of the first auxiliary request and of an objection relating to Articles 84 and 123(3), and decision T1149/97 of the second auxiliary request, and the lack of substantiation of the public prior use to Opponents (1) and (3).
- 7 Opponent (1) was asked to discuss the relevance of **D11**; in particular as it is an Article 54(3) EPC document, it is therefore only admissible as a "P" document if there is evidence that the application entered the European patent system. The Opponent duly produced the evidence that **D11** entered the European phase as well as citing the passages relevant to the subject-matter of the granted claim. The Patentee argued that the document was not considered as admissible as no switch cabinet was disclosed therein.
- 8 The Chairman interrupted the proceedings between 09:34 and 09:41 and on resumption, he informed the parties that **D11** is considered as forming part of the allowable prior art under Article 54(3) EPC and was admitted in the proceedings.
- 9 Opponent (1) argued that **D11** discloses all the features of claim 1 and that the enclosed chamber specified in the abstract can be read as a cabinet, as the skilled man would know that a switching device needs to be protected from dust etc and that it would not be exposed in the open. Although the term "cabinet" is not explicitly disclosed, the skilled man would be able to derive this knowledge from the context and that there would not be any other possible arrangement for a switch circuit other than in a cabinet. As the other features are known from page 5, lines 15 to 21 and figures 2 and 4, and as the skilled man knows how a switching apparatus would be de-humidified in an enclosed space i.e a cabinet, the subject-matter of claim 1 is not new.
- 10 The Patentee argued that all the features must be clearly and unambiguously disclosed and that **D11** discloses an enclosed chamber and not a switch cabinet, and therefore said document does not disclose the subject-matter of claim 1. He added further that the disputed patent stated where the switch cabinet is located and that in **D11**, the location is not disclosed and therefore the skilled man does not know which part of the plant is to be de-humidified.
- 11 Opponents (2) and (3) agreed with Opponent (1) and suggested that the skilled man would read a "cabinet" for the enclosed space as disclosed.
- 12 The Chairman interrupted the proceedings between 10:11 and 10:29 and on resumption, he informed the parties that **D11** is not novelty-destroying to the subject-matter of claims 1 and 8. He also mentioned that the discussion should be focussed on documents E6 and E7 filed by Opponent (2) which appear to be the most relevant state of the art.
- 13 Opponent (1) argued that **E6** discloses a wind energy plant comprising a switch cabinet illustrated on page 4 which contains elements required to test for the wind turbine. **E6** also discusses the main problem inside the plant as

being humidity (see the final column on page 6) and discloses the use of heaters in order to dry the air inside the switch cabinet. As convection occurs naturally inside the cabinet due to the heating elements, warmed air will flow around the switch cabinet. Referring to **D1** (the "Schaltbuch"), Opponent (1) discussed the different layouts for switch cabinets disclosed therein and argued that a wind turbine switch cabinet would not differ from any other switch cabinet available and therefore **D1** discloses that switching elements are placed alongside the heating apparatus which can produce a convection current across the elements.

- 14 Opponent (2) added the comment that on page 6 of **E6**, it is stated that the heating element can protect against condensation which can only mean that convection must take place if this is to occur. He also referred to **E7** wherein the switch cabinet is not explicitly disclosed but that dehumidification takes place and that heaters are provided. Therefore Opponent (2) suggests that both **E6** and **E7** are novelty destroying for the subject-matter of claim 1.
- 15 Opponent (3) discussed the clarity of the subject-matter of claim 1 in terms of the meaning of the terms "switch cabinet" and "wind turbine" as he was of the opinion that the switch cabinet should be specifically related to the wind turbine, as the size of the cabinet is essential to the understanding of the claim. He also asked why the public prior use could not be used in the argument against claim 1.
- 16 The Chairman re-iterated that none of the issues relating to public prior use were properly substantiated and therefore said arguments were not allowable in the proceedings and that the EPC states that the claim should be read to be understood and in this case, claim 1 was quite clear as to its scope.
- 17 The Patentee argued that **D1** and **E1** do not disclose wind turbine switch cabinets and that **E6** and **E7** only disclose heaters that prevent condensation forming in the cabinet. As the subject-matter of claim 1 requires a device that generates an air flow, a heater cannot be considered as such a device, and although a heater may provide convection streams, this is not specifically disclosed.
- 18 All Opponents made the point that wind turbine switch cabinets are identical in function to others and that **E6** discloses a device for generating an air flow as this would be provided by the heating device.
- 19 The proceedings were interrupted between 11:03 and 11:28. On resumption, the Chairman informed the parties that claim 1 of the main request was not considered novel in light of the teaching of **E6**, but that the documents **E1** and **D1** were not considered novelty-destroying. The Chairman then pointed out to the Patentee that under Rule 43(5) EPC, the claims submitted as the first auxiliary request were not allowable as they were not numbered consecutively.

- 20 The Patentee confirmed that he would re-number the claims contained in the first auxiliary request and the proceedings could continue.
- 21 The Chairman then informed the parties that the Opposition Division had provisionally concluded that the subject-matter of claim 1 of the first auxiliary request was novel as it contained the additional features of a cooling element and at least one drain element but not inventive as the skilled man would find these features in other documents. Although the Opponents had no comments to make on this statement, and agreed that claim 1 is new, the Patentee asked the Division for its opinion on the presence of the fan in claim 1. The Chairman replied that a fan was not specified in claim 1 and that as novelty was not disputed, the discussion should begin with inventive step.
- 22 Opponent (1) confirmed that **E6** discloses all the features except the cooling element and the drain, but that **D1** discloses these features as it is known that switch cabinets must be fitted with climatic controls such as cooling and condensate drains: in particular, **D1** discloses on page 103 a cooling element which works in combination with a dehumidifier while on page 205, a device is shown which is both cooled and heated. On page 221, it is stated that the switch cabinet is cooled and drained and afterwards heated to prevent condensation collecting in the cabinet. Therefore the skilled man is able to combine all these features with the document **E6** in order to solve the problem of claim 1. In addition, document **E2** discloses on page 2, lines 1 to 8 a thermoelectric dehumidifier that passively reduces the relative humidity of the air within a sealed electronic assembly. As **E2** specifically discloses a peltier element along with the heating, cooling and draining features and therefore **E6** in combination with **E2** also discloses all the features of claim 1.
- 23 Opponent (2) pointed out that claim 1 from the first auxiliary request is different from claim 1 of the second auxiliary request as the second states that the switch cabinet is simultaneously heated and dried. In addition he argued that as **D1** states that the cabinet is cooled, dehumidified and then heated to avoid the collection of condensate, this is all the skilled man requires to disclose the features of claim 1 of the first auxiliary request. Furthermore, **E2** also discloses a system that occurs "simultaneously" as well as an airflow between the two plates of the peltier element (see page 5 and figure 3). If one looks to the problem/solution approach for claim 1, the features prevent the build-up of condensate through cooling. On page 6 of **E6** it states that "...heaters are used in the cabinets that house the electronic components and protect them from condensation", the same can be read from **E2**, and therefore the skilled man could combine **E2** with **E6** to provide the same solution.
- 24 Opponent (3) argued that the document **E6** discloses a dehumidifying and heating device and that **D1** discloses a cooling/draining element. Chapter 7 of **D1** discloses that the technical effect of heating and cooling a cabinet is the



reduction of moisture. As general knowledge of switch cabinets means that the skilled man would use the teaching in particular to switch cabinets for wind turbines, claim 1 is not inventive.

- 25 The Patentee argued that **E6** discloses that although the dehumidifier would protect the inside of the cabinet, the outside would in fact not be affected and therefore the document teaches away from the subject-matter of claim 1 and the skilled man would not find any other teaching in the prior art to provide the subject-matter of a device that generates an air flow which combines with the other features. As **E6** already provides a solution for the problem of removing moisture from the nacelle, why would the skilled man look for an alternative solution. As **D1** does not disclose specific embodiments, just a general citation, the skilled man would not see a starting point for applying the problem/solution approach.
- 26 All the opponents pointed out that **D1** discloses all the features required to provide an air flow as per claim 1 and that **E2** takes advantage of natural convection in order to provide the air flow across the element. Therefore both documents lead to the subject-matter of claim 1. Opponent (1) additionally referred to **D2** which also discloses a cooling element and a heat exchanger for a switch cabinet. Opponent (2) suggested that as **E6** discloses that the components in the nacelle need to be protected, the skilled man would find the imperative to look at other documents relating to cabinets and therefore all the prior art is relevant to this subject-matter, in particular as **E2** specifically relates to "sealed electronic enclosures".
- 27 The proceedings were interrupted between 12:51 and 13:56. On resumption, the Chairman informed the parties that although claim 1 of the first auxiliary request was considered novel in light of the teaching of **E6**, it was not inventive in the light of the teaching of either **E2** or **D2**. The Chairman then informed the parties that the second auxiliary request still needed to meet the requirements of Articles 84 and 123(2) and (3) EPC as well as issues raised during the proceedings.
- 28 The Patentee then requested to file a third auxiliary request making amendments in the light of the Chairman's objections, to which the Chairman responded by refusing the third request until the second had been discussed.
- 29 Opponent (1) argued that the amendments to claim 1 of the second auxiliary request broadens the subject-matter as it refers to a continuous drying of the cabinet. As the disputed patent only refers to drying of the area around the switching elements, not the whole cabinet, the amendments do not meet the requirements of Art. 123(2) EPC.
- 30 Opponent (2) stated that functional features taken from the embodiments must be included in their entirety and therefore the term "continuous" must be included. As heating takes place first, then the air cooled and the steps

- repeated, what effect on the embodiment does the term "continuous" have? The function would have a completely different effect on the air inside the cabinet and therefore Article 123(2) EPC is not met.
- 31 Opponent (3) stated that the specific sequence of the air circulating in the cabinet has a particular effect on the cabinet and therefore the term "continuous" does have a specific meaning in respect to Article 123(2) EPC.
- 32 The Patentee stated that the term "drying" in English meaning indicates a continuous form and therefore adding the term "continuously" would only superficially add clarity. The skilled man would understand the difference between the relationship between the features and the functioning of the circuit and he would realise that without a continuous form, the effect could not be achieved.
- 33 The proceedings were interrupted between 14:35 and 14:43. On resumption, the Chairman informed the parties that claim 1 of the second auxiliary request does not meet the requirements of Article 123(2) EPC. Insertion of the term "continuously" or of any other feature taken from the description cannot therefore be considered at such a late stage in the proceedings and would be considered as late-filed. Asked if he had any further requests, the Patentee replied negatively.
- 34 The Chairman informed the parties that the patent was revoked and closed the proceedings at 14:45.

After deliberation of the opposition division,

- the chairman announced the following **decision**:

**"The European patent is revoked."**

Regarding the reasons for the decision, the chairman referred to:

Article 101(2) EPC, first sentence: the following ground(s) for opposition mentioned in Article 100 EPC prejudice(s) the maintenance of the patent as granted.

The chairman **closed the oral proceedings** on 30.11.2009 at 14:45 hours.



signed:

Thomas, Daniel

.....  
Chairman

Enclosure(s):

signed:

Morrish, Susan

.....  
Minute Writer